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## NOTICE OF ALLOWANCE AND FEE(S) DUE

22879 7590 01/07/2009 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELL ECTITAL PROPERTY ADMINISTRATION

FORT COLLINS, CO 80527-2400

EXAMINER BAUM, RONALD

PAPER NUMBER

2439
DATE MAILED: 01/07/2009

 APPELCATION NO.
 FIEINO DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 10/810,308
 03/26/2004
 Michael John Wray
 B-5404 621794-8
 7996

TITLE OF INVENTION: SECURITY ATTRIBUTES IN TRUSTED COMPUTING SYSTEMS

 APPL. TYPE
 SMALL ENTITY
 ISSUE FEE DUE
 PUBLICATION FEE DUE
 PREV. PAID ISSUE FEE
 TOTAL FEES) DUE
 DATE DUE

 nonprovisional
 NO
 \$1510
 \$300
 \$0
 \$1810
 0407/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

## PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PU	BLICATION FEE (if required). Blocks 1 through 5 should be completed when
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	Note: A certificate of mailing can only be used for domestic mailings of th

appropriate. All further indicated unless correct maintenance fee notifica	ed below or directed otl	ng the Patent, advance o herwise in Block 1, by (	a) specifying a new corre	spondence address;	and/or (b) indicating a sep	t correspondence address a parate "FEE ADDRESS" fo	
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
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FORT COLLIN	S, CO 80527-2400					(Depositor's name)	
						(Signature)	
						(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	3	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/810,308 TITLE OF INVENTION	03/26/2004 SECURITY ATTRIBU	UTES IN TRUSTED CO!	Michael John Wray MPUTING SYSTEMS		B-5404 621794-8	7996	
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE TOTAL FEE(8) DU	E DATE DUE	
nonprovisional	NO	\$1510	\$300	\$0	\$1810	04/07/2009	
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	1			
BAUM, I	RONALD	2439	713-200000	J			
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME A	ondence address (or Cha B/122) attached. ication (or "Fee Address 22 or more recent) attach ND RESIDENCE DAT. less an assignee is ident h in 37 CFR 3.11. Comp	inge of Correspondence "Indication form ned. Use of a Customer A TO BE PRINTED ON	(I) the names of up to or agents OR, alternat (2) the name of a sing registered atterner or e registered patent attempts of the order o	ively,  le firm (having as a agent) and the name orneys or agents. If a printed.  pe)  patent. If an assignate assignment.	member a 2es of up to no name is 3ee is identified below, the	document has been filed for	
Please check the appropr	iate assignee category or	r categories (will not be p	rinted on the patent):	Individual Co	rporation or other private g	roup entity Government	
Advance Order -	o small entity discount j	permitted)	A check is enclosed.  Payment by credit ca	rd. Form PTO-2038 v authorized to chan	ge the required fee(s), any d		
<ol> <li>Change in Entity Sta</li> <li>a. Applicant claim</li> </ol>	tus (from status indicate is SMALL ENTITY stati		D. Applicant is no los	nger claiming SMAL	L ENTITY status. Sec 37 C	CFR 1.27(g)(2).	
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Authorized Signature			Date				
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10/810,308	03/26/2004	Michael John Wray	B-5404 621794-8	7996
22879	7590 01/07/2009		EXAM	INER
HEWLETT PACKARD COMPANY  BAUM, RONALD				
P O BOX 272400, 3404 E. HARMONY ROAD			ART UNIT	PAPER NUMBER
INTELLECTUAL PROPERTY ADMINISTRATION		2420		

DATE MAILED: 01/07/2009

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 716 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 716 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)	
10/810,308	WRAY, MICHAEL JOHN	
Examiner	Art Unit	
RONALD BAUM	2439	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERTIS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 133 and MPEP 1308.

- 1. This communication is responsive to 10/20/2008.
- 2. The allowed claim(s) is/are 1-13,15 and 16.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) 

    All b) 

    Some\* c) 

    None of the:
    - 1. A Certified copies of the priority documents have been received.
    - 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) I hereto or 2) to Paper No./Mail Date \_\_\_\_\_
  - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🗌 Other \_\_\_\_

Application/Control Number: 10/810,308 Page 2

Art Unit: 2439

## DETAILED ACTION

## Examiner's Statement of Reasons for Allowance

- 1. Claims 1-13, 15 and 16 are allowed over prior art.
- 2. This action is in reply to applicant's correspondence of 20 October 2008.
- The following is an examiner's statement of reasons for the indication of allowable claimed subject matter.
- 4. As per claims 1 and 15 generally, prior art of record, Austel et al, U.S. Patent 6,430,561, fails to anticipate, disclose, teach or suggest alone, or in combination, at the time of the invention, the features as set forth in the claims in this application as allowed, and not necessarily as summarized and/or characterized by the examiner, whether or not as italicized, as discussed and remarked upon in the response of 20 October 2008 to office action of 23 July 2008.

Specifically, (as per claim 1, for example) prior art dealing with various aspects of tamper resistant trusted computing platforms utilizing various software (e.g., obfuscation), hardware (e.g., secure processor/memory hardware per se), and combinations (e.g., secure booting, OS oriented approaches) enforcement architecture solutions (i.e., using an XOM processing architecture with a compartmented OS configuration to achieve a trusted environment using an un-trusted OS on a trusted hardware (i.e., the XOM processor architecture) platform; Lie, D., et al, 'Implementing an Untrusted Operating System on Trusted Hardware', Copyright 2003, ACM 1-58113-757-5/03/0010, entire document, http://www.cs.rochester.edu/meetings/sosp2003/papers/p134-lie.pdf), is generally known per se.

Nowhere in the prior art is found collectively the *italicized* claim elements (i.e., the *compartment OS* environment whereas the *compartment OS* environment is explicitly loaded prior to loading, (and subsequently applying to associated system resources), a predetermined security policy

Application/Control Number: 10/810,308

Art Unit: 2439

defining security attributes applicable to the service(s)/process(es) supported by the system, as contrasted to said predetermined security policy defining security attributes applicable to the service(s)/process(es) supported by the system aspects loaded/applied prior to OS loading (e.g., booting scenarios)), at the time of the invention, serving to patently distinguish the invention from said prior art;

# "1. A system comprising

a trusted computing platform and

one or more logically protected computing environments,

each logically protected computing environment being

an operating system compartment associated with

at least one service or process supported by said system,

the system being arranged to

load an operating system into

said trusted computing platform and

thereafter to

load onto said trusted computing platform

data defining a predetermined security policy

defining security attributes to be applied to

one or more of the at least one service or process

when said service or process is started."

Application/Control Number: 10/810,308 Page 4

Art Unit: 2439

5. Dependent claims 2-13 and 15 are allowable by virtue of their dependencies.

Art Unit: 2439

## Conclusion

6. Any inquiry concerning this communication or earlier communications from examiner should be directed to Ronald Baum, whose telephone number is (571) 272-3861, and whose unofficial Fax number is (571) 273-3861 and unofficial email is Ronald.baum@uspto.gov. The examiner can normally be reached Monday through Thursday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand, can be reached at (571) 272-3811. The Fax number for the organization where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. For more information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald Baum

Patent Examiner

/R. B./

Examiner, Art Unit 2439

/Kambiz Zand/

Supervisory Patent Examiner, Art Unit 2434